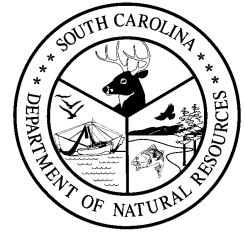


South Carolina Department of Natural Resources

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Alvin A. Taylor
Director
Robert D. Perry
Director, Office of
Environmental Programs

January 26, 2016

Mr. Joe Koon
SCDHEC
BLWM/DMSWM
2600 Bull Street
Columbia, SC 29201-1708

REFERENCE: Mining Application # I-002106, Vulcan Construction Materials LLC
Lexington Quarry, Lexington County

Dear Mr. Koon:

Personnel with the South Carolina Department of Natural Resources (SCDNR) have reviewed the proposed project, evaluated its impact on natural resources and offer the following comments.

SCDNR personnel participated in a site visit with SCDHEC personnel, the applicant and the applicant's agent on January 11, 2016. The proposed mine is located approximately 5 miles northeast of Batesburg-Leesville near the intersection of US Highway 1 and Stutman Road in Lexington County. The applicant proposes to mine granite, sand and sand/clay from a 288.3 acre affected area. The proposed site also includes 69.3 acres of future impacts/reserves and 195.6 acres of undisturbed buffers. The surface elevations of the proposed pit area range from approximately +500 feet to +570 feet mean sea level (msl). The depth to the pit floor would be 350 feet to an elevation of approximately +150 msl. The proposed mine will involve the pumping of groundwater and a NPDES permitted point source discharge. The application indicates that there are 6.01 acres of wetlands and streams on the site with approximately 1.1 acres of wetlands and streams anticipated to be impacted. The remaining wetlands and streams are proposed to be preserved with a minimum 75 foot upland buffer. A proposed reclamation plan has been submitted indicating the site will be restored to grasslands, lakes and woodlands after mining.

According to SCDNR data, there are currently no records of threatened and endangered species or species of conservation concern in the project area. Please keep in mind that this information is derived from existing databases, and do not assume that it is complete. Areas not yet inventoried by SCDNR biologists may contain significant species or communities.

The permit application indicates that a wetland Jurisdictional Determination (JD) request has been submitted to the Charleston District of the US Army Corps of Engineers (Corps). The application states that a Section 404/401 dredge and fill permit application and water quality certification request will be submitted to the Corps and SCDHEC once a JD letter is received. SCDNR recommends that all unavoidable wetland and stream impacts be adequately compensated as required under the Federal Mitigation Rule and the Charleston District Guidelines for

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Compensatory Mitigation. SCDNR reserves the right to review any required federal or state permits and mitigation proposals at the time of public notice issuance. For more information regarding compensatory wetland mitigation requirements refer to: <http://www.sac.usace.army.mil/Missions/Regulatory/CompensatoryMitigation>.

The proposed site is located on the ecotone between the piedmont and the sandhills/coastal plain ecoregions. The application states that groundwater seepage is expected into the mine pit from the coastal plain sediments, saprolite (weathered granite) and the fractures in the upper zone of the granite. The groundwater seepage will collect in the pit sumps and will be stored there along with any stormwater until pumped to surface ponds to be used for process water and dust suppression. The application also states that the potential for the quarry to adversely impact wells on neighboring properties is considered to be highly unlikely based on the site geology, experience at other quarries in the piedmont and nearby surface hydrology. SCDNR finds that the risk of dewatering existing wells near the proposed quarry will vary based on the construction of the wells. The coastal plain sediments in the area are mostly isolated and very thin so there is no risk for a large scale cone of depression in the coastal plain sediments in the area; however, it is possible that nearby shallow wells in the coastal plain could be impacted depending on the volume of water removed and the changing flow patterns. SCDNR submits that the majority of the risk is associated with nearby wells constructed into the underlying piedmont. The impacts to these nearby wells will be heavily dependent on the how the water-bearing fractures are connected and this is very difficult to determine in many cases. The applicant has proposed a *Groundwater Observation Plan* to provide a methodology and a means of monitoring groundwater levels near the mine. SCDNR formally requests a copy of this document as soon as it becomes available for review and comment.

In order to further reduce potential impacts, DNR recommends the following stipulations are incorporated as permit conditions.

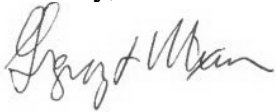
- The proposed crossing of Little Creek must be made with an appropriately sized bridge or arched culvert. Bridges and arched culverts must be sized and designed to prevent alteration of the natural stream morphology. Where feasible, disturbed stream banks must be restored by using bioengineering techniques for stream bank stabilization.
- The grassland areas in the proposed reclamation plan should be vegetated to the greatest extent practicable with native warm-season grasses that are beneficial to wildlife. Appropriate species include but are not limited to Big Bluestem, Little Bluestem, Indiangrass, and Switchgrass. For more information regarding native warm-season grasses refer to: http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_021520.pdf.
- Prior to beginning any land disturbing activity, appropriate erosion control measures, such as silt fences, silt barriers or other devices, must be placed between the disturbed area and the affected waterway or wetland; and maintained in a functioning capacity until the area is permanently stabilized.
- All necessary measures must be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas.
- Land disturbance should be kept to a minimum and accomplished in phases if possible. Disturbed areas should be exposed only for the period of time required to extract the resource and vegetation should be re-established promptly.

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- Land clearing should not begin until sediment basins and other conservation practices have been established. Clearing should be limited to the areas to be immediately mined.
- The number of overburden piles should be kept to a minimum and runoff should be diverted into sediment basins until vegetation can be established. Overburden piles should not be placed in drainageways or floodways.
- The project must be in compliance with any applicable floodplain, stormwater, land disturbance, or riparian buffer ordinances.

DNR has no objection to the issuance of the proposed permit provided that the above concerns and stipulations are adequately addressed. Should you have any questions or need more information, please do not hesitate to contact me by email at mixong@dnr.sc.gov or by phone at 803.734.3282.

Sincerely,



Greg Mixon
Inland Environmental Coordinator

cc: Mark Caldwell – USFWS
Kelly Laycock – USEPA
Brice McCoy – USACE
Bob Perry - SCDNR